

Patent claims

1. A process for the recovery of fluorinated emulsifiers from an aqueous phase which, besides the emulsifier, contains small amounts of fluoropolymer particles, wherein

5 - an upper concentration value of a nonionic surface-active substance is determined below which no further decrease in desorption of the emulsifier bound to an anion exchanger takes place,

10 - the aqueous phase is adjusted to a concentration of nonionic surface-active agent of between the upper concentration value determined in this way and a lower concentration which is still effective for preventing coagulation of the polymer particles,

15 - the aqueous phase adjusted in this way is brought into contact with an anionic exchanger resin in order to effect the adsorption of the emulsifier onto the exchanger resin, and

- the emulsifier is liberated from the exchanger resin.

2. A process for the recovery of fluorinated emulsifiers from an aqueous phase which, besides the emulsifier, contains small amounts of fluoropolymer particles, wherein the aqueous phase is adjusted to a concentration of nonionic surface-active agent of between 10 ppm and a lower concentration which is still effective for preventing coagulation of the polymer particles, the aqueous phase adjusted in this way is brought into contact with an anionic exchanger resin in order to effect the adsorption of the emulsifier onto the exchanger resin, and the emulsifier is liberated from the exchanger resin.

3. The process as claimed in claim 2, where the concentration of the nonionic surface-active agent is from 5 to 0.1 ppm.

4. The process as claimed in one or more of the preceding claims, wherein the nonionic surface-active agent is non-aromatic.

30 5. The process as claimed in one or more of the preceding claims, where the nonionic surface-active agent is a fatty alcohol oxyethylate.

6. The process as claimed in one or more of the preceding claims, where an effective amount of an organic flocculating agent is added to the aqueous phase in order to precipitate essentially all the fluoropolymer particles.
- 5 7. The process as claimed in claim 6, wherein the flocculating agent is an organic cationic flocculating agent.
8. The process as claimed in claim 6 or 7, wherein the flocculating agent is added to the untreated or treated aqueous phase.

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